A study of the coronal magnetic field structures during solar minimum

Tsung-Yuan Liu, Wing-Huen Ip, Chia-Hsien Liao
Institute of Space Science / Institute of Astronomy / Institute of Astronomy, National Central University

Abstract

In order to explore the scientific applications to the study of the coronal magnetic field by the LASCO and MDI observations on the SOHO spacecraft, we have combined the large-scale magnetic model formulated by Banaszkiewicz et al. (1998) with a local potential field source surface (PFSS) model to reconstruct the near-surface coronal magnetic field configurations in the vicinity of active regions. For the reason of simplicity, we have limited our study to the temporal evolution of active regions during solar minimum.

Reference

M. Neugebauer et al. 2002: Source of the solar wind at solar activity maximum, *JGRA*.107lSSH13N

P. C. Liewer et at. 2001: Determination of three-dimensional structure of coronal streamers and relationship to the solar magnetic field, *JGR.* 10615903L

Banaszkiewicz , M et al. 1998: An analytic solar magnetic field model, *A&A* 337 940B